ATTENTION

This document is provided for historical purposes only.

Documents contained in the Washington Department of Fish and Wildlife Document & Publication Archive may contain dated and/or incorrect information. The WDFW Document & Publication Archive is provided as a service to those interested in the history of fish and wildlife management in Washington State.

Olympic Mudminnow
Novumbra hubbsi

Range:
Found entirely within portions of the Olympic Peninsula and central western Washington.

Washington Distribution:
Distributed in rivers of the Chehalis River drainage, Deschutes River drainage, Olympic coastal drainages as far north as the Queets River, Lake Ozette, Puyallup Creek and Skookum Creek.

Habitat Requirements:
Olympic mudminnows inhabit lotic (pertaining to running water), pond and marsh habitats in the coastal lowlands. They occur in standing or gently flowing water with a current of less than three cm per second, with dense aquatic vegetation, and at least several centimeters of soft mud bottom substrate (Hagen et al. 1972, Harris 1974, Wydoski and Whitney 1979). The type of bottom substrate is especially important to these fish and must be composed of fine silt with a high organic content. Mudminnows are not found in swampy habitats created by recent siltation, or where water flow has been restricted by logging debris (Harris 1974).

Olympic mudminnows breed from early March to mid-June. Male fish defend territories in clumps of vegetation, including seasonally flooded reed-canary grass, or over carpets of moss; females lay their eggs on the bottom substrate (Hagen et al. 1972; Beecher, pers. comm.). They feed on a variety of aquatic invertebrates and molluscs.

Limiting Factors:
The presence of introduced predatory fish probably limits Olympic mudminnows (Beecher and Fernan 1983).

Management Recommendations:
Olympic mudminnows are most threatened by reduction or deleterious changes to the habitat within their limited range. Alterations to wetlands where these fish occur should not take place. Such alterations include draining, filling or channelizing a wetland, clearing vegetation and connecting stagnant or slow moving waters with fast moving streams. Where Olympic mudminnows are found on agricultural lands, fences should be constructed so that livestock does not denude the vegetation.

Indirect, detrimental effects to Olympic mudminnows should be considered during logging operations. Practices which change the flow patterns of feeder streams or

contribute debris to swampy habitats should be avoided. Logging in swampy portions of the Olympic Peninsula should not occur.

Olympic mudminnows may be excluded from some areas by non-native fishes (Beecher and Fernan 1983). Bass, catfish and other non-native fishes should not be introduced where mudminnows occur. Rotonone and other chemical agents that adversely affect fish should not be applied to waters occupied by mudminnows.

References:
Beecher, H.A. and R.F. Fernan. 1983. Fishes of oxbow lakes of Washington. Northwest Sci. 57(2):125-131.

Harris, C.K. 1974. The geographical distribution and habitat of the Olympic mudminnow, Novumbra hubbsi (Schultz). Unpublished report, College of Fisheries, Univ. of Wash., Seattle.

Hagen, D.W., G.E.E. Moodie, and P.F. Moodie. 1972. Territoriality and courtship in the Olympic mudminnow, Novumbra hubbsi. Can. J. Zoo. 50(8):1111-1115.

Wydoski, R.S. and R.R. Whitney. 1979. Inland fishes of Washington. Univ. of Wash. Press, Seattle. 220pp.

Key Points:
Habitat Requirements:
· 	Inhabit lake, pond and marsh habitats of coastal lowlands.
· 	Require currents of less than 3cm/second in wetlands with dense aquatic vegetation and deep, soft mud bottoms.

Management Recommendations:
· 	Avoid altering streams and wetlands where mudminnows occur.
· 	Keep livestock out of wetlands occupied by mudminnows.
· 	Avoid altering the flow of feeder streams.
· 	Avoid logging in swampy portions of the Olympic Peninsula.
· 	Do not introduce exotic fish into mudminnow habitat.
· 	Do not use rotonone where mudminnows occur.